



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,774	12/08/2003	James M. Schreder	I20 05866US	3420
128 7590 01/08/2008 HONEYWELL INTERNATIONAL INC. 101 COLUMBIA ROAD P O BOX 2245 MORRISTOWN, NJ 07962-2245			EXAMINER NORTON, JENNIFER L	
			ART UNIT 2121	PAPER NUMBER
			MAIL DATE 01/08/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/729,774

Applicant(s)

SCHREDER ET AL.

Examiner

Jennifer L. Norton

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-5 and 7-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5 and 7-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a **Non-Final Office Action** in response to the Request for Continued Examination filed on 13 December 2007. Claim 4, 7-9, 11, 14 and 15 has been amended. Claim 6 has been cancelled. Claim 1 was previously cancelled. Claims 2-5 and 7-15 are pending in this application.

Claim Objections

2. Claim 15 is objected to because of the following informalities:

Claim 15, line 8 includes the syntax error of a missing "," at the end of line.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-5 and 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,881,115 (hereinafter Lipner) in view of U.S. Patent No. 5,631,825 (hereinafter Van Weele).

5. As per claim 2, Lipner teaches as set forth below determining whether said current output is an information type (col. 4, lines 12-13); and marking said current output as complete, if said current output is said information type (col. 4, lines 15-19).

6. As per claim 3, Lipner teaches as set forth below after the executing step, storing a value of said automatic expression to a destination reference (col. 3, lines 49-51).

7. As per claim 4, Lipner teaches a control system that uses, sequential control modules, said control system comprising:

a user interface component (col. 3, lines 47-49, Fig. 1, element 33 and 35) that provides at least a table view (Fig. 3), said table view comprising:

a plurality of outputs of a step of at least one of said sequential control modules, wherein said outputs comprise a combination of at least one automatic expression and at least one interactive instruction (col. 2, lines 27-35 and col. 4, lines 19-22 and 55-63),

a summary area that provides a name of said sequential control module and a list of steps in said sequential control module (col. 2, lines 10-13, col. 4, lines 53-55, col. 5, lines 3-5 and Fig. 3, element 49),

a details area that provides a step name and a step description for said step (Fig. 3, element 65), and

a parameters area that provides a current value of at least one parameter associated with said step (col. 5, lines 63-65 and Fig. 3, element 67);
an operator station (Fig. 1, element 19) that executes said user interface component (col. 3, lines 44-47) and that responds to at least one input operator for said interactive instruction (col. 2, lines 27-35, col. 3, lines 58-64, and col. 4, lines 19-22); and
at least one controller (Fig. 1, element 15 and col. 3, lines 18-21) that is operated by executing said interactive instruction at least partly in response to said operator input and said automatic expression automatically (col. 2, lines 27-35 and col. 4, lines 19-22 and 55-63).

Lipner does not expressly teach wherein said selected step is selected from said list.

Van Weele teaches a selected step (col. 7, lines 33-40, i.e. Sequence) is selected (col. 7, lines 3-24) from said list (col. 41-50, i.e. Section).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Lipner to include a selected step is selected from said list to more efficiently control and supervise increasingly

complex manufacturing processes by subdividing informational attributes (col. 2, lines 1-4).

8. As per claim 5, Lipner teaches as set forth above a journaling component (Fig. 1, element 37) capable of being executing on said operator station for recording information related to the execution of said sequential control module (col. 3, lines 49-51).

9. As per claim 7, Lipner teaches as set forth above an additional details area (Fig. 3, element 61) for information associated with said selected step (col. 5, lines 53-57).

10. As per claim 8, Lipner does not expressly teach a trend area that provides a graph of said at least one parameter associated with said selected step.

Van Weele teaches a trend area that provides a graph of said at least one parameter associated with said selected step (col. 33, lines 34-39 and 42-47).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Lipner to include a trend area that provides a graph of said at least one parameter associated with said selected step

to more efficiently control and supervise increasingly complex manufacturing processes by subdividing informational attributes (col. 2, lines 1-4).

11. As per claim 9, Lipner teaches as set forth above said details area includes a confirmation component to receive a confirmation from said operator (col. 6, lines 15-16 and Fig. 3, element 59).

12. As per claim 10, Lipner teaches as set forth above said user interface component also provides a sequential function chart view (col. 4, lines 2-4 and Fig. 2, element 41).

13. As per claim 11, Lipner teaches a computer readable medium having executable instructions stored thereon to perform a method in a control system that uses sequential control modules, said method comprising:

providing a type indication on a display for an instruction in a sequential control module, said type being confirmable or informational (col.4, lines 12-13); and

receiving a confirmation from an operator before completing said instruction, if said type is confirmable (col. 6, lines 15-16)

at least one of said executable instructions causing an interactive display screen (col. 4, lines 35-39 and Fig. 3) to be presented to an operator that displays;

a plurality of outputs (col. 4, lines 55-63 and col. 5, lines 62-65) of a step of at least one of said sequential control modules (col. 3, lines 28-29 and 49-51

and Fig. 1, element 19), wherein said outputs comprise a combination of both automatic expression and at least one interactive instruction (col. 2, lines 27-35 and col. 4, lines 19-22),

a summary area that provides a name of said sequential control module and a list of steps in said sequential control module (col. 2, lines 10-13, col. 4, lines 53-55, col. 5, lines 3-5 and Fig. 3, element 49),

a details area that provides a step name and a step description for said step (Fig. 3, element 65), and

a parameters area that provides a current value of at least one parameter associated with said step (col. 5, lines 63-65 and Fig. 3, element 67);

at least one of said executable instructions causing a determination of whether a current one of said outputs is an interactive instruction or an automatic expression (col. 2, lines 27-35 and col. 4, lines 19-22, i.e. when a state is violated, it is determined that an interactive instruction will occur);

at least one of said executable instructions causing, if said current output is an interactive instruction, a determination of whether said interactive instruction has been confirmed by said operator (col. 6, lines 15-22);

a marking said current output complete (col. 4, lines 24-25); and

at least one of said executable instructions causing, if said current output is an automatic expression, at least one controller (Fig. 1, element 5) in said control system to execute said automatic expression (col. 3, lines 13-17 and col. 4, lines 19-20).

Lipner does not expressly teach wherein said selected step is selected from said list.

Van Weele teaches a selected step (col. 7, lines 33-40, i.e. Sequence) is selected (col. 7, lines 3-24) from said list (col. 41-50, i.e. Section).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Lipner to include a selected step is selected from said list to more efficiently control and supervise increasingly complex manufacturing processes by subdividing informational attributes (col. 2, lines 1-4).

14. As per claim 12, Lipner teaches as set forth above the computer readable medium further comprising:

at least one of said executable instructions causing at least one value of a parameter to be associated with at least one of said outputs on said display screen (col. 5, lines 63-65 and Fig. 3, element 67).

15. As per claim 13, Lipner teaches as set forth above the computer readable medium further comprising:

at least one of said executable instructions causing additional information about said current output to be displayed on said display screen (col. 5, lines 53-57 and Fig 3, element 61).

16. As per claim 14, Lipner teaches a method of providing interactive control in a control system that uses sequential control modules, said method comprising:

presenting an interactive display screen (col. 4, lines 35-39 and Fig. 3) to an operator that displays:

a plurality of outputs (col. 4, lines 55-63 and col. 5, lines 62-65) of a step of at least one of said sequential control modules (col. 3, lines 28-29 and 49-51 and Fig. 1, element 19), wherein said outputs comprise a combination of at least one automatic expression and at least one interactive instruction (col. 2, lines 27-35 and col. 4, lines 19-22),

a summary area that provides a name of said sequential control module and a list of steps in said sequential control module (col. 2, lines 10-13, col. 4, lines 53-55, col. 5, lines 3-5 and Fig. 3, element 49),

a details area that provides a step name and a step description for said step (Fig. 3, element 65), and

a parameters area that provides a current value of at least one parameter associated with said step (col. 5, lines 63-65 and Fig. 3, element 67);

determining whether a current one of said outputs is an interactive instruction or an automatic expression (col. 2, lines 27-35 and col. 4, lines 19-22, i.e. when a state is violated, it is determined that an interactive instruction will occur);

if said current output is an interactive instruction, determining whether said interactive instruction has been confirmed by said operator (col. 6, lines 15-22);

if said interactive instruction has been confirmed by said operator, marking said current output complete (col. 4, lines 24-25); and

if said current output is an automatic expression, using at least one controller (Fig. 1, element 5) in said control system to execute said automatic expression (col. 3, lines 13-17 and col. 4, lines 19-20).

Lipner does not expressly teach wherein said selected step is selected from said list.

Van Weele teaches a selected step (col. 7, lines 33-40, i.e. Sequence) is selected (col. 7, lines 3-24) from said list (col. 41-50, i.e. Section).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Lipner to include a selected step is selected from said list to more efficiently control and supervise increasingly

complex manufacturing processes by subdividing informational attributes (col. 2, lines 1-4).

17. As per claim 15, Lipner discloses a control system that uses sequential control modules, said control system comprising:

- an operator station (Fig. 1, element 19) that comprises a user interface component (col. 3, lines 44-47) that provides a display to an operator (Fig. 3) and a program that runs on said operator station an interactive procedure to present on said display a table view (Fig. 3) comprising:

- a plurality of outputs of an operator step of at least one of said sequential control modules, wherein said outputs comprise a combination of at least one automatic expression and at least one interactive instruction (col. 2, lines 27-35 and col. 4, lines 19-22 and 55-63)

- a summary area that provides a name of said sequential control module and a list of steps in said sequential control module (col. 2, lines 10-13, col. 4, lines 53-55, col. 5, lines 3-5 and Fig. 3, element 49),

- a details area that provides a step name and a step description for said step (Fig. 3, element 65), and

- a parameters area that provides a current value of at least one parameter associated with said step (col. 5, lines 63-65 and Fig. 3, element 67); and

a controller (col. 3, lines 18-21 and Fig. 1, element 15) that executes said automatic expression automatically and said interactive instruction at least partly in response to one or more inputs of said operator to said operator station (col. 2, lines 27-35, col. 3, lines 58-64 and col. 4, lines 19-22).

Lipner does not expressly teach wherein said selected step is selected from said list.

Van Weele teaches a selected step (col. 7, lines 33-40, i.e. Sequence) is selected (col. 7, lines 3-24) from said list (col. 41-50, i.e. Section).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Lipner to include a selected step is selected from said list to more efficiently control and supervise increasingly complex manufacturing processes by subdividing informational attributes (col. 2, lines 1-4).

18. If, however the prior art is interpreted differently by a third party, the base reference and secondary reference teach "a display that provides a combination of at least one automatic expression and at least one interactive instruction" as follows:

19. Claims 2-5 and 7-15 are rejected under 35 U.S.C. 103(a) as obvious over Lipner in view of Van Weele or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lipner in view of Van Weele in further view of U.S. Patent No. 4,803,039 (hereinafter Impink).

20. As per claim 2, Lipner teaches as set forth below determining whether said current output is an information type (col. 4, lines 12-13); and marking said current output as complete, if said current output is said information type (col. 4, lines 15-19).

21. As per claim 3, Lipner teaches as set forth below after the executing step, storing a value of said automatic expression to a destination reference (col. 3, lines 49-51).

22. As per claim 4, Lipner teaches a control system that uses, sequential control modules, said control system comprising:

- a user interface component (col. 3, lines 47-49, Fig. 1, element 33 and 35) that provides at least a table view (Fig. 3), said table view comprising:

- a plurality of outputs of a step of at least one of said sequential control modules (col. 2, lines 27-35 and col. 4, lines 19-22 and 55-63),

- a summary area that provides a name of said sequential control module and a list of steps in said sequential control module (col. 2, lines 10-13, col. 4, lines 53-55, col. 5, lines 3-5 and Fig. 3, element 49),

a details area that provides a step name and a step description for said step (Fig. 3, element 65), and

a parameters area that provides a current value of at least one parameter associated with said step (col. 5, lines 63-65 and Fig. 3, element 67);

an operator station (Fig. 1, element 19) that executes said user interface component (col. 3, lines 44-47) and that responds to at least one input operator for said interactive instruction (col. 2, lines 27-35, col. 3, lines 58-64, and col. 4, lines 19-22); and

at least one controller (Fig. 1, element 15 and col. 3, lines 18-21) that is operated by executing said interactive instruction at least partly in response to said operator input and said automatic expression automatically (col. 2, lines 27-35 and col. 4, lines 19-22 and 55-63).

Lipner does not expressly teach wherein said selected step is selected from said list and a display of a combination of at least one automatic expression and at least one interactive instruction.

Van Weele teaches a selected step (col. 7, lines 33-40, i.e. Sequence) is selected (col. 7, lines 3-24) from said list (col. 41-50, i.e. Section).

Van Weele does not expressly teach a display of a combination of at least one automatic expression and at least one interactive instruction.

Impink teaches to a display of a combination of at least one automatic expression (col. 13, lines 59-62 and col. 14, lines 51-56 and 59-65) and at least one interactive instruction (col. 14, lines 47-50 and 56-59).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Lipner to include a selected step is selected from said list to more efficiently control and supervise increasingly complex manufacturing processes by subdividing informational attributes (Van Weele: col. 2, lines 1-4); and a display of a combination of at least one automatic expression a major advantage of the display generated in accordance with the invention is that all of the information is brought to one place for use by the operator (Impink: col. 13, lines 52-55).

23. As per claim 5, Lipner teaches as set forth above a journaling component (Fig. 1, element 37) capable of being executing on said operator station for recording information related to the execution of said sequential control module (col. 3, lines 49-51).

24. As per claim 7, Lipner teaches as set forth above an additional details area (Fig. 3, element 61) for information associated with said selected step (col. 5, lines 53-57).

25. As per claim 8, Lipner does not expressly teach a trend area that provides a graph of said at least one parameter associated with said selected step.

Van Weele teaches a trend area that provides a graph of said at least one parameter associated with said selected step (col. 33, lines 34-39 and 42-47).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Lipner to include a trend area that provides a graph of said at least one parameter associated with said selected step to more efficiently control and supervise increasingly complex manufacturing processes by subdividing informational attributes (col. 2, lines 1-4).

26. As per claim 9, Lipner teaches as set forth above said details area includes a confirmation component to receive a confirmation from said operator (col. 6, lines 15-16 and Fig. 3, element 59).

27. As per claim 10, Lipner teaches as set forth above said user interface component also provides a sequential function chart view (col. 4, lines 2-4 and Fig. 2, element 41).

28. As per claim 11, Lipner teaches a computer readable medium having executable instructions stored thereon to perform a method in a control system that uses sequential control modules, said method comprising:

providing a type indication on a display for an instruction in a sequential control module, said type being confirmable or informational (col.4, lines 12-13); and

receiving a confirmation from an operator before completing said instruction, if said type is confirmable (col. 6, lines 15-16)

at least one of said executable instructions causing an interactive display screen (col. 4, lines 35-39 and Fig. 3) to be presented to an operator that displays:

a plurality of outputs (col. 2, lines 27-35, col. 4, lines 19-22 and lines 55-63 and col. 5, lines 62-65) of a step of at least one of said sequential control modules (col. 3, lines 28-29 and 49-51 and Fig. 1, element 19),

a summary area that provides a name of said sequential control module and a list of steps in said sequential control module (col. 2, lines 10-13, col. 4, lines 53-55, col. 5, lines 3-5 and Fig. 3, element 49),

a details area that provides a step name and a step description for said step (Fig. 3, element 65), and

a parameters area that provides a current value of at least one parameter associated with said step (col. 5, lines 63-65 and Fig. 3, element 67);

at least one of said executable instructions causing a determination of whether a

current one of said outputs is an interactive instruction or an automatic expression (col. 2, lines 27-35 and col. 4, lines 19-22, i.e. when a state is violated, it is determined that an interactive instruction will occur);

at least one of said executable instructions causing, if said current output is an interactive instruction, a determination of whether said interactive instruction has been confirmed by said operator (col. 6, lines 15-22);

a marking said current output complete (col. 4, lines 24-25); and

at least one of said executable instructions causing, if said current output is an automatic expression, at least one controller (Fig. 1, element 5) in said control system to execute said automatic expression (col. 3, lines 13-17 and col. 4, lines 19-20).

Lipner does not expressly teach wherein said selected step is selected from said list and a display of a combination of at least one automatic expression and at least one interactive instruction.

Van Weele teaches a selected step (col. 7, lines 33-40, i.e. Sequence) is selected (col. 7, lines 3-24) from said list (col. 41-50, i.e. Section).

Van Weele does not expressly teach a display of a combination of at least one automatic expression and at least one interactive instruction.

Impink teaches to a display of a combination of at least one automatic expression (col. 13, lines 59-62 and col. 14, lines 51-56 and 59-65) and at least one interactive instruction (col. 14, lines 47-50 and 56-59).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Lipner to include a selected step is selected from said list to more efficiently control and supervise increasingly complex manufacturing processes by subdividing informational attributes (Van Weele: col. 2, lines 1-4); and a display of a combination of at least one automatic expression a major advantage of the display generated in accordance with the invention is that all of the information is brought to one place for use by the operator (Impink: col. 13, lines 52-55).

29. As per claim 12, Lipner teaches as set forth above the computer readable medium further comprising:

at least one of said executable instructions causing at least one value of a parameter to be associated with at least one of said outputs on said display screen (col. 5, lines 63-65 and Fig. 3, element 67).

30. As per claim 13, Lipner teaches as set forth above the computer readable medium further comprising:

at least one of said executable instructions causing additional information about said current output to be displayed on said display screen (col. 5, lines 53-57 and Fig 3, element 61).

31. As per claim 14, Lipner teaches a method of providing interactive control in a control system that uses sequential control modules, said method comprising:

presenting an interactive display screen (col. 4, lines 35-39 and Fig. 3) to an operator that displays:

a plurality of outputs (col. 2, lines 27-35, col. 4, lines 19-22 and 55-63 and col. 5, lines 62-65) of a step of at least one of said sequential control modules (col. 3, lines 28-29 and 49-51 and Fig. 1, element 19),

a summary area that provides a name of said sequential control module and a list of steps in said sequential control module (col. 2, lines 10-13, col. 4, lines 53-55, col. 5, lines 3-5 and Fig. 3, element 49),

a details area that provides a step name and a step description for said step (Fig. 3, element 65), and

a parameters area that provides a current value of at least one parameter associated with said step (col. 5, lines 63-65 and Fig. 3, element 67);

determining whether a current one of said outputs is an interactive instruction or an automatic expression (col. 2, lines 27-35 and col. 4, lines 19-22, i.e. when a state is violated, it is determined that an interactive instruction will occur);

if said current output is an interactive instruction, determining whether said interactive instruction has been confirmed by said operator (col. 6, lines 15-22);

if said interactive instruction has been confirmed by said operator, marking said current output complete (col. 4, lines 24-25); and

if said current output is an automatic expression, using at least one controller (Fig. 1, element 5) in said control system to execute said automatic expression (col. 3, lines 13-17 and col. 4, lines 19-20).

Lipner does not expressly teach wherein said selected step is selected from said list and a display of a combination of at least one automatic expression and at least one interactive instruction.

Van Weele teaches a selected step (col. 7, lines 33-40, i.e. Sequence) is selected (col. 7, lines 3-24) from said list (col. 41-50, i.e. Section).

Van Weele does not expressly teach a display of a combination of at least one automatic expression and at least one interactive instruction.

Impink teaches to a display of a combination of at least one automatic expression (col. 13, lines 59-62 and col. 14, lines 51-56 and 59-65) and at least one interactive instruction (col. 14, lines 47-50 and 56-59).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Lipner to include a selected step is selected from said list to more efficiently control and supervise increasingly complex manufacturing processes by subdividing informational attributes (Van Weele: col. 2, lines 1-4); and a display of a combination of at least one automatic expression a major advantage of the display generated in accordance with the invention is that all of the information is brought to one place for use by the operator (Impink: col. 13, lines 52-55).

32. As per claim 15, Lipner teaches as set forth above a control system that uses sequential control modules, said control system comprising:

an operator station (Fig. 1, element 19) that comprises a user interface component (col. 3, lines 44-49) that provides a display to an operator (Fig. 3) and a program that runs on said operator station an interactive procedure to present on said display a table view (Fig. 3) comprising:

a plurality of outputs of an operator step of at least one of said sequential control modules (col. 2, lines 27-35 and col. 4, lines 19-22 and 55-63)

a summary area that provides a name of said sequential control module and a list of steps in said sequential control module (col. 2, lines 10-13, col. 4, lines 53-55, col. 5, lines 3-5 and Fig. 3, element 49),

a details area that provides a step name and a step description for said step (Fig. 3, element 65), and

a parameters area that provides a current value of at least one parameter associated with said step (col. 5, lines 63-65 and Fig. 3, element 67); and

a controller (col. 3, lines 18-21 and Fig. 1, element 15) that executes said automatic expression automatically and said interactive instruction at least partly in response to one or more inputs of said operator to said operator station (col. 2, lines 27-35, col. 3, lines 58-64 and col. 4, lines 19-22).

Lipner does not expressly teach wherein said selected step is selected from said list and a display of a combination of at least one automatic expression and at least one interactive instruction.

Van Weele teaches a selected step (col. 7, lines 33-40, i.e. Sequence) is selected (col. 7, lines 3-24) from said list (col. 41-50, i.e. Section).

Van Weele does not expressly teach a display of a combination of at least one automatic expression and at least one interactive instruction.

Impink teaches to a display of a combination of at least one automatic expression (col. 13, lines 59-62 and col. 14, lines 51-56 and 59-65) and at least one interactive instruction (col. 14, lines 47-50 and 56-59).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Lipner to include a display of a combination of at least one automatic expression a major advantage of the display generated in accordance with the invention is that all of the information is brought to one place for use by the operator (col. 13, lines 52-55).

Response to Arguments

33. Applicant's arguments see Remarks pgs. 7-9, filed 13 December 2007 with respect to claims 2-5 and 9-15 under 35 U.S.C. 102(b) have been considered but are moot in view of the new ground(s) of rejection.

34. Applicant's arguments see Remarks pg. 9, filed 13 December 2007 with respect to claim 8 under 35 U.S.C. 103(a) have been considered but are moot in view of the new ground(s) of rejection.

35. Applicant's arguments see Remarks pg. 9, filed 13 December 2007 with respect to claims 2-5 and 9-15 under 35 U.S.C. 103(a) have been considered but are moot in view of the new ground(s) of rejection.

36. Applicant argues that the prior art fails to teach, "that screen 47 displays a plurality of outputs of step 6"; the Examiner respectfully disagrees.

Lipner teaches (col. 5, lines 63-67) "The status of the relevant plant components and parameters for the step are displayed at 67. This is an active area, and any changes to the plant, either through operator or plant-induced actions, will be clearly visible in this area, since the plant data is updated."

Furthermore, in the alternative, Impink teaches (col. 13, lines 59-62) "The user is not burdened with remembering whether a parameter or component should be checked; the system does it for him."

(col. 14, lines 47-65) "The numeral "1" indicates that the condition was not verified by the sensors, but that the operator indicated that the recommended manual action had been completed. An "O" indicates that the required action was overridden. Some substeps do not require operator action but indicate whether a particular

condition exists or not. An example of this occurs in Step 7. The first substep checks the motor driven auxiliary feedwater pumps as was illustrated by the display of FIG. 3. The "1" indicates that the sensors detected that the pumps were not on, but that the operator indicated that he activated the switches to start them. The second substep of Step 7 determines whether it is necessary to have the turbine driven pump on. The "-2" indicates that it is not necessary. A "-1" would have indicated that it was necessary. The third substep then checks if the turbine driven pump is on. The "2" indicates that the sensors detect that it is on in the situation depicted by the example."

In summary, Lipner teaches, or in the alternative Impink teaches Applicant's claimed limitation of "wherein said outputs comprise a combination of at least one automatic expression and at least one interactive instruction".

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer L. Norton whose telephone number is 571-272-3694. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Vincent can be reached on 571-272-3080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/729,774
Art Unit: 2121

Page 27

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


David Vincent 1/17/08
Supervisory Patent Examiner
Art Unit 2121